Conservation Provisions

CONSERVATION PROVISIONS OF THE 2002 FARM BILL

Check out these sites for the latest information:

FSA - www.fsa.usda.gov - See "Conservation Reserve Program"
NRCS - www.nrcs.usda.gov
USDA - www.usda.gov/farmbill/
NACD - www.nacdnet.org
Farm Bill Network – www.fb-net.org
SWCS - www.swcs.org/f_advocacy_action.htm
IAFWA - www.iafwa.org - Go to Program & Grants & then Farm Bill

The Farm Bill conservation database hosted by The Wildlife Society at www.wildlife.org provides easy access to hundreds of informational items highlighting the need for and success of various Farm Bill Conservation programs.

USDA has also initiated a set of on-line information pages on the 2002 Farm Bill at http://www.usda.gov/farmbill/. Developed and maintained by the USDA Economic Research Service, it contains links to current information in easily usable formats.
Go to:
www.ERS.usda.gov/Features/farmbill/titles/titleIIconservation.htm

To view the pamphlet "2002 Conservation Practices and Programs For Your Farm," check the web at: www.whmi.nrcs.usda.gov

ACRONYMS

CRP - Conservation Reserve Program, includes regular CRP, Continuous CRP and Conservation Reserve Enhancement Programs (CREP).
EQIP - Environmental Quality Incentives Program
FLEP - Forest Land Enhancement Program
FSA - Farm Service Agency
IAFWA - International Association of Fish & Wildlife Agencies
NACD - National Association of Conservation Districts
NBCI - Northern Bobwhite Conservation Initiative
NGO - Non-Governmental Organization
NRCS - Natural Resource Convservation Service
SEQSG - Southeast Quail Study Group
SWCS - Soil & Water Conservation Society
USDA - United States Department of Agriculture
WHIP - Wildlife Habitat Incentives Program

NORTHERN BOBWHITE CONSERVATION INITIATIVE

The Southeast Quail Study Group (SEQSG) Technical Committee, an arm of the Southeastern Association of Fish and Wildlife Agencies (SEAFWA), completed in March 2002 the Northern Bobwhite Conservation Initiative (NBCI). The Initiative is the first-ever landscape-scale habitat restoration and population recovery plan for northern bobwhites (Colinus virginianus) in the U.S. NBCI was developed in recognition of (1) the continuing serious decline of bobwhite populations across most of the species' range, and (2) the necessity for large-scale coordinated, action at the regional level.

The Initiative can be reviewed at:
www.qu.org/seqsg/nbci/nbci.cfm.

Web Sites

Where To Find Out More About
Bobwhites/Wildlife Management:

State web sites

Alabama – www.dcnr.state.al.us/agfd
Arkansas & Arkansas Game & Fish Foundation – www.agfc.state.ar.us
Colorado – www.dnr.state.co.us
Delaware – www.dnrec.state.de.us
Florida – www.state.fl.us/gfc
Georgia – - www.state.ga.us/dnr/wild/
Illinois – www.dnr.state.il.us
Indiana – www.wildlife.IN.gov
Iowa – www.state.ia.us/government/dnr
Kansas – www.kdwp.state.ks.us
Kentucky – www.kdfwr.state.ky.us/smallgam.htm
Louisiana – www.wlf.state.la.us
Maryland – www.dnr.state.md.us
Massachusetts – www.state.ma.us/dfwele
Michigan – www.michigan.gov/dnr
Mississippi – http://msucares.com/pubs/pub2179.htm
Missouri – www.conservation.state.mo.us/landown/wild
Nebraska – www.ngpc.state.ne.us
New Jersey – www.state.nj.us/dep/fgw/
New Mexico – www.gmfsh.state.nm.us
North Carolina – www.state.nc.us/wildlife
Ohio – www.dnr.state.oh.us
Oklahoma – www.wildlifedepartment.com/
Oregon – www.dfw.state.or.us
Pennsylvania – www.dcnr.state.pa.us
Rhode Island – www.state.ri.us/dem
South Carolina – www.dnr.state.sc.us
Tennessee – www.state.tn.us/twra
Texas – www.tpwd.state.tx.us
Virginia -www.dgif.state.va.us/wildlife/habitat_part/farm_habitat.html
West Virginia – www.wvwildlife.com
Wisconsin – www.dnr.state.wi.us

Federal web sites

United States Fish & Wildlife Service – www.fws.gov
Plant Materials Centers – www.plant-materials.nrcs.usda.gov
Wildlife Habitat Management Institute - www.whmi.nrcs.usda.gov
specific quail information at www.ms.nrcs.usda.gov/whmi/pdf/quail.pdf
Natural Resource Conservation Service – www.nrcs.usda.gov
Farm Service Agency – www.fsa.usda.gov

Other web sites

Auburn University – Albany Area Quail Management Project – www.quailmanagement.com
Caesar Kleberg Wildlife Research Institute, Kingsville, TX – www.ckwri.tamuk.edu/
Quail Unlimited – www.qu.org
Southeast Quail Study Group (SEQSG) – www.qu.org/seqsg
Tall Timbers Research Station, Tallahassee, FL – www.ttrs.org
Texas Cooperative Extension – http://texnat.tamu.edu and http://teamquail.tamu.edu
The Longleaf Alliance – www.longleafalliance.org
University of Arkansas Cooperative Extension Service - www.uaex.edu
Quail V Proceedings – Proceedings of the 2002 National Quail Symposium are at www.ms.nrcs.usda.gov/whmi/wildlife_quail5.htm

This pamphlet was developed by the Southeast Quail Study Group (SEQSG), Habitat Implementation Committee and was edited by David Howell with Quail Unlimited. The SEQSG was formed by the Southeastern Association of Fish and Wildlife Agencies in 1995 and is composed of wildlife biologists from state and federal agencies, universities, private conservation groups and private/corporate landowners. The SEQSG is charged with addressing the long-term decline in bobwhite quail populations through management, research and education. 05/03

Bobwhite Basics

Habitat Basics

The bobwhite quail is the most widely distributed and intensively studied of all North American quail, but in recent decades its abundance has declined dramatically throughout much of its native range. Critical to helping improve quail numbers is an understanding of bobwhite ecology and management. This pamphlet offers a summary of key bobwhite life history and habitat management needs and provides additional sources of detailed information.

Habitat Basics

Bobwhites utilize a variety of cover throughout their broad geographic range, including:

• Grass/forb communities – This cover varies from the native grass and forb (forbs are non-woody broad-leaved plants) rangelands at the western edge of bobwhite range to old fields, fallow areas and savanna habitat in the East. Throughout its entire range, it is especially important that the bobwhite's habitat not be too thick at ground level. Bare ground interspersed with upright annual and perennial plants (forbs) provides food and foraging areas, brood-rearing, nesting habitat and roosting sites. Periodic habitat disturbance (plowing, disking, grazing, controlled burning, herbicide spraying) is critical in areas where higher rainfall occurs. Brood-raising and food-producing grass/forb communities --- so vital to the bobwhites well-being --- can be lost to advancing plant succession in as little as two or three years.

• Shrubby/woody communities – Shrubs and trees are important components of good bobwhite habitat. These areas provide protection from predators and extreme weather, offer travel lanes and resting areas, and provide food. The western edge of the bobwhite's range contains grasslands with scattered thorny bushes; the Plains and Midwest are dominated by brushy draws, fencerows and woodlots; and the East and Southeast contain pine woods and shrubby travel lanes. Pine woods require periodic thinning and a basal area of no more than 50 to 60 square feet per acre that permits a grass/forb understory. Following a thinning, a prescribed burn should be utilized to enhance habitat quality. Patches of shrubby/wooded areas interspersed with cropland and grass/forb vegetation are needed for bobwhites to attain good population levels.

Nesting

Bobwhites often construct nests by forming a slight depression in the soil, lining the nest with grass and/or pine needles. The nest commonly includes a canopy of dead grasses. Nests are often within 75 feet of an opening or edge. Preferred nesting sites contain some scattered shrubs and have been undisturbed for two or more years. In a pasture/range situation, continuous grazing or improper stocking rates can result in removal of nesting cover and elimination of bunch grasses. A typical clutch contains 12-15 eggs that hatch 23 days after incubation begins. Nest success varies from site to site and from year to year, however, approximately 25% of all nests are successful. Bobwhites will re-nest following unsuccessful attempts and recent research has shown that in good habitat, second broods are more common than once believed.

Brood Habitat

Soon after hatching, broods leave the nest and are cared for by one or both adults. To ensure best brood survival, it is important that quality brood-raising cover be available. Young chicks must be able to move easily on semi-bare ground so they can catch insects. Overhead cover is also needed to protect chicks from predators and harsh weather. A mixture of annual grasses and forbs (such as ragweed, partridge pea and annual lespedezas) provide cover and high protein foods (insects) needed by bobwhite chicks.

Fall/Winter Activities

Broods and unmated birds typically join together and break-up throughout the late summer/early fall. This mixing of bobwhites is referred to as the "fall shuffle". When the traditional covey unit forms, it contains an average of 10 to 16 birds and may include young from several different broods. Bobwhite coveys typically settle into a "headquarters" area, containing some brushy/woody cover adjacent to a winter food supply of weed seeds, waste grains and soft/hard mast. On more northern winter ranges, a portion of the brushy/woody cover must contain a dense understory. Coveys typically move less than a 1/4 mile on winter ranges, but movement varies based on disturbance, weather and food availability. Bobwhites prefer to roost on the ground in low-growing weedy vegetation, but will move into thicker cover during periods of severe winter weather.

Foods

Bobwhites are primarily seed-eaters, with over 1000 different plants having been documented in their diet. As much as 75 percent of the annual adult diet may be composed of food from annual plants (ragweed, foxtail). Various legumes, including lespedezas and beggarweeds, make an especially attractive food. It is critical that seeds are available on exposed soil with upright overhead cover offering protection while the birds forage. In the case of waste grains (soybeans, corn, wheat), thick brushy or woody cover needs to be nearby. During the late winter/early spring period, green vegetation becomes a key food and may improve the overall physical condition of the birds, thereby resulting in improved nest success. Insects are eaten in small quantities by adult bobwhites, but are essential for chicks. Below is a summary of some of the major foods used by bobwhite quail throughout their range.

Major bobwhite foods reported from several geographic regions in the United States (Dimmick 1992)*

Southeastern Coastal Plains & Piedmont	Midwest & Midsouth Agricultural Lands	South Texas Plains
Beggarweeds (sticktights)	Korean/Kobe Lespedeza	Doveweeds
Corn	Common Ragweed	Hoary Milkpea
Crab Grass	Dogwood	Yellow Woodsorrel
Sassafras	Wild Beans	Ragweeds
Ragweed	Beggarweeds (sticktights)	Verbena
Korean/Kobe Lespedeza	Partridge Pea	Texas Millet
Oaks (acorns)	Blackberries	Wild Rice
Pines	Oaks (acorns)	Switchgrass
Wild Beans	Wild Grape	Bristlegrass
Panic Grasses	Ash	Browntop Millet
Wheat	Sorghum	Groundcherry
Paspalums	Sassafras	Spiny Hackberry
Bicolor Lespedeza	Foxtails	Live Oak (acorns)
Partridge Pea	Wheat	Paspalums
Soybean	Corn	
Dogwoods	Soybeans	
Sorghum		
Ash		
Foxtail Grasses		
Blackberries		

In the Southeast, longleaf pine plantings provide for both timber production and wildlife benefits.

* Dimmick, Ralph, 1992. Northern Bobwhite. U.S. Army Corps of Engineers. National Technical Information Service. 5285 Port Royal Rd., Springfield, VA 22161. 78 pp.

Bobwhite Management Overview

Everyone would like to see more bobwhites on their property. Accomplishing that objective often takes a lot more work and effort than many folks imagine. Below are some common misconceptions that landowners should be aware of as they strive to implement a quail management plan.

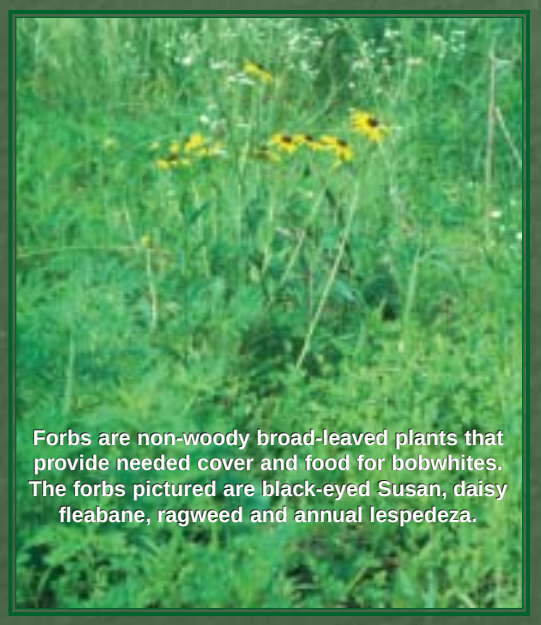
• **Disturbance - Diversity - Dedication…** Those words describe the backbone of any quail management plan. The bobwhite simply cannot exist in good numbers if a well-developed plan that stresses those three words is not implemented. So often individuals think that they can just protect an area for quail and expect the birds to thrive. It won't happen. The best managed wild bobwhite areas today, whether on pine plantations, grazing lands or grain farms have a large portion (typically 1/3 to 2/3 depending on weather & habitat conditions) of the landscape disturbed annually by controlled burning, disking, grazing or cropping.

• **Cover is Critical …** Any tract of land being developed to benefit quail, from 40 to 4,000 acres, must have sufficient favorable cover that enables bobwhites to survive and thrive. That cover, which varies by region, must fulfill the seasonal needs of quail. Simply planting a couple food plots is no guarantee the right amount of bobwhite nesting, brood-raising, foraging and roosting cover occurs to support a quail population. The farm landscape of yesteryear, with multiple, small diversified farming operations, created a favorable environment for bobwhites. Unfortunately, it takes a more conscious effort to achieve that goal today.

• **Looks Good To Me …** Many individuals interested in having more bobwhites on their farm or ranch fail to see differences in the cover they have today and that of years past, when quail populations thrived. Changes in plant species occurrence and composition can be both subtle and dramatic. Those changes result in both the quality and quantity of available quail habitat and are a major reason for our current bobwhite decline.

• **Let's Turn 'em Loose …** Releasing pen-raised birds will never be the answer to having more wild quail. While those pen-raised birds may help maintain shooting preserves and assist with dog training and field trials, they can never help bring back our native wild bobwhites.

• **Education A Key …** Understanding what can be done on your farm or ranch to maintain or increase bobwhite numbers is essential. No game bird has received more attention and study than the bobwhite quail and the references, publications and videos listed in this pamphlet can help you gain a better idea of how you can succeed in quail management. Additionally, participation in a local or regional workshop or field day on quail management can help you see what other landowners have done to benefit quail numbers. Today, more opportunity exists to receive technical and financial support for bobwhite management through state, federal and non-governmental organization programs than has ever occurred. Please take advantage of it.



Forbs are non-woody broad-leaved plants that provide needed cover and food for bobwhites. The forbs pictured are black-eyed Susan, daisy fleabane, ragweed and annual lespedeza.

Major Bobwhite Seasonal Activities and Needs

Illustration reprinted with permission of the Virginia Department of Game and Inland Fisheries

Food and cover establishment practices that can help improve quail abundance.

FOOD/COVER ESTABLISHMENT	WHERE SUITED	BENEFIT	TIME	FREQUENCY OF PRACTICE	COST-SHARE AVAILABILITY *			
					CRP	WHIP EQIP	FLEP	STATE/NGO
Buffers/ Field Borders	Crop areas adjacent to drainage areas & forest edges.	Nesting, brood-rearing, & travel lanes	Spring / Fall	Several to many years, if maintained properly.	X	X		X
Cool Season Grasses (Not Fescue)	Open lands needing wildlife friendly cover.	Nesting, foraging and roosting cover. Best done in mixtures with forbs & legumes.	Fall / Spring	Should persist for several years. Prevent heavy litter buildup.	X	X		X
Forbs & Legumes	Open fields, idle areas, pine/savanna understory, buffers & field borders.	Food (insects & seeds), brood habitat & cover	Fall / Spring	Several years, but management disturbance needed.	X	X	X	X
Grain Plantings	Open acres needing winter foods	Food / bare ground	Spring / Summer	Annually, but also creates natural early successional plant cover if left undisturbed up to two years after planting.				X
Longleaf Pine	Native range along SE coastal areas.	Restores valuable fire-friendly ecosystem for quail/wildlife	Planting Late Winter / Early Spring	75 + years over sawlog rotation.	X	X	X	X
Native Warm Season Grasses	Open fields, pine savanna understory, buffers and field borders, rotational pastures.	Nesting & roosting cover. Best done in mixtures with forbs & legumes. Use lowest seeding rates for wildlife plantings.	Spring / Early Summer	Indefinitely, but periodic disturbance a must.	X	X		X
Natural Plant Succession	Any area subject to disturbance.	Creates early successional plant cover vital to bobwhite survival.	Year-round	Every two to four years. More frequent in areas with high rainfall.		X	X	X
Oak/Savanna Restoration	Degraded oak/savanna areas.	Restores beneficial ecosystem	Maintenance activities completed year-round.	Indefinitely, if properly maintained.	X	X		X
Shrubs	Large open fields & travel lanes.	Escape areas & travel lanes	Late Winter	Indefinitely, but periodic thinning needed.	X	X	X	X

* Programs change, so check with your wildlife biologist or natural resource personnel for current availability.

Types of disturbance practices needed to create and maintain quail habitat.

DISTURBANCE PRESCRIPTION	WHERE SUITED	BENEFIT	TIME	FREQUENCY OF PRACTICE	COST-SHARE AVAILABILITY*			
					CRP	WHIP EQIP	FLEP	STATE NGO
Controlled Burning	Idle fields, thinned pine plantations.	Thin litter accumulation, kill hardwood trees & shrubs, stimulate native legumes	Primarily fall/winter, but growing season burns may be useful.	Usually every 2-3 years, depending on vegetation growth.	X	X	X	X
Strip Disking	Openings, idle fields, thinned pine stands, older CRP plantings.	Sets back plant succession, thins overgrown areas to improve brood cover.	Fall / Winter best	Every 2 - 3 years, disk small percent annually on a rotational basis.	X	X	X	X
Pine Thinning	Pine plantations.	Opens stands, permits more sunlight on ground to encourage forb growth.	Year Round	Varies by species and site index. From quail standpoint thin as often as possible.	X	X	X	
Grazing	Native grass paddocks established for short duration grazing systems.	Establishes ideal roosting and nesting cover. Properly manage grazing intensity (no overgrazing).	High intensity - low frequency grazing works well with native bunch grass.	Annually		X		
Grazing	Range	No overgrazing. Proper grazing management compatible with good quail management.	Implement at least a 3 pasture rotation system.	Annually		X		
Herbicides	Kill unwanted exotic plants. Thin or eliminate competing vegetation.	Alters advancing plant succession and enhances success of tree, shrub, grass/legume/forb establishment.	Mostly during spring, summer, fall.	Annually to several years.	X	X	X	X
Roller Chopping / Aeration	Open fields and brushland.	Sets back plant succession.	Open fields - Fall/Winter. Brush control - late summer.	Every 2 - 3 years.		X		
Fescue Conversion	Idle fields, established fescue plantings.	Eliminate poor quality wildlife cover.	Fall through early Spring.	Permanently eliminate fescue.	X	X		X
Mowing	Open fields. May be needed to mow heavy vegetation before disking.	Can help improve access, but best quail benefits accomplished from other practices.	September through March.	Generally done on annual rotational basis.		X		

* Programs change, so check with your wildlife biologist or other natural resource personnel for current availability.

Find Out More

Videos

- **Bobwhite Habitat Management in Mississippi** – 35 minutes – VHS $10.00. This video will equip the landowner, manager, or sportsman with information and techniques needed to improve and restore wild quail populations. Includes companion publication: Ecology & Management of the Northern Bobwhite. MSU Extension Service, Bobwhite Video, Box 9690, Mississippi State, MS 39762. Visit http://msucares.com/pubs/pub2179.htm

- **Quail Country** – 20 minutes – VHS, $10.00. Three landowners describe their interest in bobwhites and what they've done on their farms to improve habitat for these appealing upland game birds. Missouri Department of Conservation, MDC Media Library, P.O. Box 180, Jefferson City, MO 65102-0180, (314) 751-4115.

- **Giving Bobwhites An Edge** - 38 Minutes- Free to Kansas landowners, $10.60 to others. The video directs landowners and managers toward detailed land management actions that promote bobwhite numbers. Available from Kansas WIldlife & Parks. To order call 620-672-5911.

- **Farms, Grasslands & Wildlife** – 30 minutes – Free. Bobwhite quail and many other grassland species have been on a long-term decline over the past 30 years. By using the practices shown in this video you can provide better habitat for quail, conserve soil and water and improve livestock production. Available through the Kentucky Department of Fish & Wildlife Resources, Attn: Wildlife Annex, Upland Game Program, #1 Game Farm Rd., Frankfort, KY 40601.

- **Prince of Game Birds: The Bobwhite Quail** – 28 minutes - $10.00. This video traces the life cycle of quail throughout the year and shares the excitement of quail hunting. Quail Unlimited, P.O. Box 610, Edgefield, SC 29824-0610.

- **Thirty Coveys a Day** – 28 minutes - $15.00. Shows how man and nature cooperate in South Texas to provide some of the fastest quail gunning in North America. Quail Unlimited, P.O. Box 610, Edgefield, SC 29824-0610.

- **Managing CRP Lands for Wildlife** – 15 minutes – VHS, Free. This video shows you how to implement approved management practices, such as prescribed burning, strip disking, shrub plantings and food plots to improve CRP lands for wildlife. Provided by the Missouri Department of Conservation. NE Regional Office, 2500 S. Halliburton, Kirksville, MO 63501.

Books

- **Bobwhites in the Rio Grande Plain of Texas** by Val W. Lehmann. 1984. Texas A&M University Press, College Station, TX. 371 pp.

- **On Bobwhites** by Fred S. Guthery. 2000. Texas A&M University Press, College Station, TX, 213 pp. 800-826-8911.

- **Population Ecology of the Bobwhite** by John L. Roseberry & Willard D. Klimstra. 1984. Southern Illinois University Press. Carbondale, IL. 259 pp.

- **The Bobwhite Quail – Its Life and Management** by Walter Rosene. 1969. Rutgers University Press, New Brunswick, NJ. 418 pp.

- **The Bobwhite Quail – Its Habits, Preservation, and Increase** by Herbert L. Stoddard. 1931. Charles Scribner's Sons, New York, NY, 559 pp.

Booklets

- **Managing For Quail** by Progressive Farmer, Inc. 2001. 37 pp.
Send check or money order for $9.95 per copy, plus $3.95 s&h charges to "Managing for Quail," Progressive Farmer Books, P.O. Box 830069, Birmingham, AL 35283-0069, or call 800-425-0374 for credit card orders.

- **Bobwhite Quail In Georgia** – History, Biology, and Management by Reggie Thackston and Mark Whitney. 2001. Georgia Department of Natural Resources. 48 pp. Send a request with a self-addressed postage paid ($1.06) envelope (6.5"x9.5" or larger) to Bobwhite Quail Initiative, 116 Rum Creek Drive, Forsyth, GA 31029-6518.

- **Conservation Plants** – Pocket ID Guide – by National Association of Conservation Districts. 1995. 71 pp. Identifies some commonly used conservation plants. Available by calling 1-800-825-5547 ext. 32. $4.75 per copy.

- New handbook and fact sheets on bobwhite management available 2003 from Tall Timbers Research Station. Check www.ttrs.org for order information.

- Various websites listed in the pamphlet have reference to additional information that can be ordered.

Periodic fall/winter disking of idle areas helps create and/or maintain quail habitat.

Photo Credits - Male bobwhite by Michael A. Kelly - Longleaf pines by Louis Justice - - Bobwhite chick by Dwight Dyke - Other Photos by David Howell. -